<u>**Amendments to the Claims**</u>:

The listing of claims will replace all prior versions, and listings, of claims in the application:

<u>**Listing of Claims**</u>:

1. (Currently Amended) A track jump control apparatus, comprising:

<u>a tracking error signal detector outputting a tracking error signal;</u>

<u>a comparator for determining whether or not a zero-cross cycle of an immediately preceding tracking error signal exceeds a predetermined threshold value until a target track number is reached; and</u>

a tracking actuator driver for driving a pick-up in a track traversing direction at a time of track-jumping <u>,and outputting a plurality of pulses including,</u>[[;]]

a first <u>acceleration</u> pulse ~~applying means for applying~~ <u>applied with</u> ~~at~~ a suitable timing ~~a first acceleration pulse or a deceleration pulse to said tracking actuator driver~~ <u>, and</u>

~~a determining means for determining whether or not a zero-cross cycle of an immediately preceding tracking error signal exceeds a predetermined threshold value until a target track number is reached; and~~

~~a second pulse applying means for applying~~ a second acceleration pulse larger than said first acceleration pulse when it is determined by the comparator ~~said determining means~~ that said predetermined threshold value is exceeded.

2. (Previously Presented) An apparatus according to claim 1, wherein said second acceleration pulse is set in such a manner that at least one of a level and a width thereof is larger than that of said first acceleration pulse.

3. (Currently Amended) A track jump method in a track jump control apparatus in which a target track number is set and a jump pulse corresponding to said target tack number is applied to a tracking actuator driver, and ~~a jump is performed one by one tack~~ by applying a first acceleration pulse ~~or a deceleration pulse at~~ with a suitable timing to said tracking actuator driver until said target track number is reached, comprising following steps of:

(a)   determining whether or not a zero-cross cycle of an immediately preceding tracking error signal exceeds a predetermined threshold value until said target track number is reached; and

(b)   applying a second acceleration pulse larger than said first acceleration pulse when said zero-cross cycle exceeds said predetermined threshold value.

4. (Previously Presented) A method according to claim 3, wherein said second acceleration pulse is set in such a manner that at least one of a level and a width thereof is larger than that of said first acceleration pulse.

5. (New) A track jump control apparatus, comprising:

(a)   a tracking error signal detector outputting a tracking error signal;

a comparator for determining whether or not a zero-cross cycle of an immediately preceding tracking error signal exceeds a predetermined threshold value until a target track number is reached;

(b)   a level detector for detecting a tracking error signal level;

(c)   a tracking actuator driver for driving a pick-up in a track traversing direction at a time of track-jumping ,and outputting a plurality of pulses including,

(1)   a first acceleration pulse applied with a suitable timing,

(2)   a second acceleration pulse larger than the first acceleration pulse when it is determined by the comparator that said predetermined threshold value is exceeded,

(3)   a brake pulse applied a predetermined number of tracks before said target track, wherein said level detector detects the level of the tracking error signal within a predetermined period shorter than a target value of the zero-cross cycle at a time that the application of said brake pulse has ended, and

(4)   a third acceleration pulse when said level does not fall below

a predetermined value.

6. (New) A track jump method, comprising steps of:

(a)   setting a total track number up to a target track;

(b)   applying at a suitable timing a first acceleration pulse or a

deceleration pulse to said tracking actuator driver;

(c)   determining whether or not a zero-cross cycle of an

immediately preceding tracking error signal exceeds a predetermined threshold

value until the target track is reached;

(d)   applying a second acceleration pulse, at least one of a level

and a width of which is larger than at least corresponding one of a level and a

width of said first acceleration pulse, to said tracking actuator driver when it is

determined by said step (c) that said predetermined threshold value is exceeded;

(e)   applying a brake pulse to said tracking actuator driver a

predetermined number of tracks before said target track;

(f)   detecting a level of the tracking error signal within a

predetermined period shorter than a target value of the zero-cross cycle at a time

that the application of said brake pulse by said step (e) is ended; and

(g)   applying a third acceleration pulse to said tracking actuator

driver when said level does not fall below a predetermined value.

7. (New) An apparatus according to claim 1, wherein the plurality of pulses further includes a jump pulse which initiates the movement of an objective lens.

8. (New) An apparatus according to claim 1, wherein the plurality of pulses further includes a brake pulse which stops the movement of an objective lens.